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ABSTRACT

Suggesting that a separate accreditation criterion for visual literacy proposed for journalism and mass communication schools is insufficient and inappropriate, this paper proposes that the Association for Education in Journalism and Mass Communication (AEJMC) develop and support a program promoting visual literacy as a curriculum standard. Following a discussion of various visual literacy definitions, the paper presents background research on the concept of visual literacy in several disciplines, such as reading, psychology, art, and mass communications. The paper then addresses the proliferation of visual symbols in contemporary communications, and the need to set a visual literacy standard. The main portion of the paper discusses six skills-oriented objectives for teaching visual literacy. The visually literate communicator should be able to: (1) read and interpret visible actions or symbols appropriate to media; (2) evaluate and appreciate visual communication from knowledgeable critical perspectives; (3) write or create media appropriate visual messages; (4) integrate visual and verbal content at every stage of the message; (5) recognize legal, ethical, and moral responsibilities inherent in presenting visuals in a mass communications context; and (6) understand the mechanical processes of communications media as they affect the visual message. The concluding sections of the paper consider methods for measuring students' visual literacy skills, suggestions for curriculum changes that include visual literacy, and the role of the Visual Communications Division of AEJMC in establishing visual literacy as a standard of education in journalism and mass communication schools. (A sample visual literacy standard and notes are appended.) (NKA)

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VISUAL LITERACY IN MASS COMMUNICATIONS:

A PROPOSAL FOR EDUCATORS

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Submitted to the VISUAL COMMUNICATION DIVISION
for the 1987 Convention
of the Association for Education in Journalism and Mass Communication

VISUAL LITERACY IN MASS COMMUNICATIONS:

A PROPOSAL FOR EDUCATORS

Recently it was proposed that a standard for visual literacy be added to accrediting guidelines for schools of journalism and mass communications. This paper suggests that a separate accreditation criterion is neither sufficient nor appropriate. Instead, it proposes that the Visual Communications Division of the AEJMC develop and support a program to promote the inclusion of visual literacy as a working curriculum standard. This program would address the goal of educating the educators on the need to teach visual literacy, and include the collection of a databank of ideas for teaching, curriculum, research, and facilities and resource development. The paper offers definitions and background on the concept of visual literacy. It presents six specific skills-oriented objectives for teaching visual literacy and suggestions for using them.

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INTRODUCTION

Visual literacy has long been a concern of educators in journalism and mass communications. But neither the concept of visual literacy nor its position in the curriculum has been well-defined. Recently, however, in response to changes in the communications industry, and to heightened interest on the part of members of the Association for Education in Journalism and Mass Communications (AEJMC), it has been proposed that a standard for visual literacy be added to the guidelines of the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC).

This paper offers communications educators definitions and background on the concept of visual literacy. It presents six specific skills-oriented objectives for teaching visual literacy and suggestions for using them. Finally, it discusses the role of the Visual Communications Division (VisCom) of the AEJMC in promoting a standard for visual literacy.

WHAT IS VISUAL LITERACY?

Three definitions illustrate the breadth of visual literacy as a concept and the basic skills it encompasses. The first, by Curtiss in Introduction to Visual Literacy, states that visual literacy is not specific to any medium, either in communications or art:

> The term 'visual literacy' has been in use since about 1970, having arisen from the proliferation of visual communications: television, electrographic (instant) printing, and computer technology. Yet, as a concept, visual literacy is applicable to all forms and media of visual expression. In verbal literacy -- the ability to read and write a language -- no distinction is made as to the typographic font, format, or method used for the act of verbal communication via the written word. Similarly, the concept of visual literacy -- the ability to understand (read) a variety of visual examples, such as painting, sculpture, film, and architecture, and the ability to express oneself (write) with at least one visual medium -- is relevant to all visual arts and design disciplines as well as to visual communications. Indeed, visual literacy is pertinent to the entire visible world in which we live.[1]

The second definition, by the International Visual Literacy Association, stresses the need for integrated skills:

> Visual literacy refers to a group of vision competencies a human being can develop by seeing and at the same time having and integrating other sensory experiences. The development of these competencies is fundamental to normal human learning. When developed, they enable a visually literate person to discriminate and interpret the visible actions, objects, and symbols, natural or man-made, that he encounters in his environment. Through the creative use of these competencies, he is able to communicate with others. Through the appreciative use of these competencies, he is able to comprehend and enjoy the masterworks of visual communications.[2]

The third definition, by Dondis in A Primer of Visual Literacy, links visual literacy to the larger concept of education:

> A verbally literate person is defined as one who can read and write, but this definition can be extended to mean an educated person. For visual literacy the same extension of meaning should hold true. Beyond providing a body of shared information and experience, visual literacy holds a promise of an educated understanding of that information and experience .... Increased visual intelligence means easier understanding of all meaning which takes visual form.[3]

All of these ideas are readily acceptable. The definitions, however, are amorphous; they suggest goals, but are no more than a start in establishing a standard of visual literacy directed to education for the distinct needs and processes of mass communications. What is lacking are focused teaching objectives. This paper offers six skills-oriented objectives that state that the visually literate communicator should be able to:

1. READ and interpret visible actions, objects, and symbols appropriate to communications media; understand visual grammar and syntax.

2. EVALUATE and appreciate visual communication from knowledgeable critical perspectives.

3. WRITE or create visual messages appropriate to communications media; understand the creative process.

4. INTEGRATE VISUAL AND VERBAL CONTENT at every stage from evaluation through execution of the message.

5. RECOGNIZE legal, ethical, and moral RESPONSIBILITIES inherent in presenting visuals in a mass communications context.

6. UNDERSTAND THE MECHANICAL PROCESSES of communications media as they affect the visual message.

These objectives will be expanded on later. First, however, a look at the contributions of research is in order.

RESEARCH ON VISUAL LITERACY

An Eastman Kodak publication says:

> Visual literacy is an elephant. We are like the blind men in the parable, who examined the pachyderm and came up with varying conclusions about the nature of the beast. The term "visual literacy" originally referred to the group of skills that enable an individual to understand and to use visuals for the purposes of intentionally communicating his own messages, or for interpreting and understanding the intentional visual communications of others. However, visual literacy, like a baby elephant, grew.
>
> By and by, psychologists, physiologists, educators, computer scientists, and men of medicine were added to the ranks of art and language arts scholars, sociologists, archaeologists, urbanologists, and others who expressed deep concern about knowing how visual communication affects us and is affected by us. Now the term "visual literacy" has as many definitions as it has people defining it. We are encouraged, however, to know that common elements are found among all the definitions.[4]

This is as colorful (and visual) a way as any of saying that just about everyone seems to be doing some kind of research involving visuals, but that no one has agreed on a single definition. Research on visual literacy is obviously both multidisciplinary and interdisciplinary. Prominent among its contributors are researchers in psychology, education, reading, and art.

Experimental psychology and education have been seen as closely related fields since the turn of the century, with the exception of a period during the '30s and '40s when the behaviorist movement generally rejected applied research as "not scientific." An important development was the rise of Gestalt psychology in the 1930s. Gestalt psychologists' studies of visual illusions indicated the many ways in which our brains influence what we see. Their view of people as active constructors of their own perceptions influenced approaches to teaching. Their idea that there are separate but interrelated sensory modes of learning -- visual, verbal, auditory -- is a fundamental assumption in visual literacy. In recent years, outgrowths of Gestalt psychology such as cognitive psychology and information-processing theory have continued to contribute to education research.

Reading research, conducted over at least 100 years in a number of behavioral disciplines, has collected enormous bodies of data that strongly support the importance of visual factors. Much early experimental psychology in the nineteenth century concerned reading. Basic knowledge about the effects of eye movements on reading speed and the recognition of words as whole shapes was developed then. All of this research, plus the proliferation of mass media in the last few decades, has led to the development of a large field involved with audiovisual instructional materials and teaching techniques.[3]

An obvious influence on our understanding of visual literacy is of course the age-old study of art and design. Recent writings on visual literacy and creativity draw on psychology as well as on a long tradition of theories about the fundamental elements and principles related to visual communication.

In mass communications, at least 150 years of research on type has given us valuable guidelines for typographical design and layout. Over the last few decades, communications scholars have explored interdisciplinary avenues in analyzing the effects of visual media -- photography, film, television -- on audiences. Visual factors have surfaced in many studies on credibility in news and persuasion in advertising. Now, with the stampede of new technologies, we are entering a significant era of behavioral and marketing research on topics such as electronic writing and editing, pagination, desktop publishing, and interactive media.

Two themes persist in nearly all of this research: a holistic view derived from Gestalt psychology; and a dual-mode approach that distinguishes between visual and verbal learning.

Gestalt theory is popularly summarized as "the whole is greater than the sum of its parts." But Gestalt means much more in terms of perceptual organization. "Its theoretical base is the belief that an approach to understanding and analyzing all systems requires recognizing that the system ... as a whole is made up of interacting parts, which can be isolated and viewed as completely

independent and then reassembled into the whole," says Dondis.[6] "Intelligence does not operate in verbal abstractions alone. Thinking, observing, understanding, so many of the qualities of intelligence, are linked to visual understanding." The advantage of visual over verbal communication is that "visually, you see content and form simultaneously ... without conscious decoding, translating, or delay."[7]

Arnheim, who draws heavily on gestalt psychology, takes a totally visual approach. He says "visual thinking calls ... for the ability to see visual shapes as images of the patterns of forces that underlie our existence -- the functioning of minds, of bodies and machines, the structure of societies and ideas."[8] He places all levels of thought in the realm of visual imagery. Perception includes mental imagery and is in itself an active, intelligent operation, involving selectivity, categorization and problem-solving. Higher forms of thought require "highly abstract configurations, represented by topological and often geometrical figures in mental space."[9] As for language, Arnheim says first that it is not necessary for thought, as animals seem to think without it. He sees language as "a set of perceptual shapes -- auditory, kinesthetic, visual."[10] The value of language "must be the help that words lend to thinking while it operates in a more appropriate medium, such as visual imagery."[11]

In the 1950s, Paivio developed an approach to cognition called dual-coding theory, based on the idea that humans have two mental symbolic systems: the visual, which he refers to as "imagery," and the verbal. He summarizes the interrelated functions of these systems this way: "Imagery is relatively better than the verbal system for representing and coping with the concrete aspects of a situation, with transformations, and with parallel processing in the spatial sense. The verbal system is superior in abstract and sequential processing tasks .... Obviously the symbolic systems normally do not function independently of each other, nor in one capacity only. They must be assumed to interact continually in any but the simplest of tasks."[12] While Paivio's assertions that

imagery exists and that it is vital to cognition have been debated in psychology, his dual-coding approach has been used in numerous works on creativity.

Even from this brief overview, it is apparent that relevant research exists in literally dozens of disciplines.[13] But there also is ample room, particularly with the advent of new technologies, for more research, just as there is room for more awareness of visual literacy at every level of mass communications.

THE NEED FOR AWARENESS

Curtiss notes that:

> From 75 to 80 percent of human sensory perception is visual; 10 percent of vision is in the eye and 90 percent in the brain; and at least 60 percent of forebrain activity -- cognition, memory, and emotion, as well as perception -- is linked with vision. Considering these facts, it is shocking that visual perception, understanding, and expression are so neglected by modern education. The neglect of visual literacy is especially reprehensible in this age of proliferating visual communication.[14]

Dondis remarks:

> There is no easy way to develop visual literacy, but it is as vital to our teaching of the modern media as reading and writing was to print. It may, indeed, be the crucial component of all channels of communication now and in the future. As long as information was primarily stored and distributed in language and the artist was regarded by society as alone in his unique ability to communicate visually, universal verbal literacy was considered essential, but visual intelligence was largely ignored. The invention of the camera has brought about a dramatic new view of communication and, collaterally, of education. The camera, the cinema, television, EVR video cartridges, and video tape, and visual media not yet in currency will modify our definition -- not only of education but also of intelligence itself. First, a re-examination of our basic visual abilities is in order. Second, a need to pursue and develop a structural system and a methodology for teaching and learning how to express and interpret ideas visually is urgent. An area that was once the exclusive province of the artist and designer must now be considered the concern of both those who work in any of the visual media and their audience.[15]

Apparently researchers are, in their respective disciplines, responding to Dondis' first charge to re-examine basic visual abilities. But it is up to educators to respond to the second charge to develop teaching methodologies. Before either of these is possible in communications, however, both the media

world and the academic world must become more aware of the need for visual literacy.

THE MEDIA WORLD is changing so rapidly that it is virtually impossible for anyone -- including communications educators -- to keep up. Just a decade or two ago, television was the inspiration for heightened interest in visual literacy. Now add to the traditional print/broadcast mix filmless cameras; public-access databases; audio- , video- and CD-ROM discs; desktop and electronic publishing; pagination; cable and interactive media; video recorders; high-definition and large-screen television; electrostatic and laser jet printers; optic fiber and satellite facsimile transmission; and a host of other new "toys" -- and consider how these influence both the communicator's and the consumer's behavior.

The distinctions are blurring between print and electronic media, commercial and personal publishing, and creative and production responsibilities. New issues of access, privacy, and copyright are being debated. The media are engaged in cutthroat wrestling matches for proportionally smaller marketplace territories. Media content is becoming undeniably more visual as the media become more complex and more competitive. Newspapers are using more and better information graphics, color, and typography; advertisers are responding to television "zapping" with shorter, more vivid commercials.

Consumers must cope with a plethora of information, and more choices and uses of media. The choices are even more difficult for consumers who are functionally illiterate. The proportion of Americans who cannot interpret a bus schedule or complete a job application in English has been rated as high as 20 percent, depending on the source and the method of testing. And while half or more of the black and Hispanic population is estimated to be illiterate, their actual numbers are only about half of the illiterate white population, for a total of more than 100 million illiterate adults.[16] These people, along with a huge population of <u>pre</u>literate consumers -- children -- obtain most of their information from television and radio. The impact of television in shaping their

images of American culture and socioeconomic values is tremendous; its potential for misleading serious. Communicators need to address such issues as social class stereotyping, exaggeration, and violence, all of which can be presented implicitly through visuals.

THE ACADEMIC WORLD is faced with its own challenges. Fransecky writes:

> For many years, schools have concentrated on verbal skills -- skill in reading, writing, speaking. The skills of visual literacy, though not recognized by this name, have traditionally been set aside as "extras" or reserved for those with "talent." Recently, educators have begun to realize that, first, this visual age requires visual as well as verbal skill of everyone, and, second, that verbal and visual skills are interconnected and both must be developed.[17]

Academic tradition runs deep. In an essay on teaching visuals in higher education, Wolff remarks:

> One of the chief obstructions blocking the acceptance of visual disciplines at the college level has been the traditional semantic rigidity of the liberal arts thesis. Over the centuries scholarly authority has prescribed an intellectuality so rigid, and subject matter criteria so categorical, that many of the significant educational innovations of the last half-century have had initially to survive in an atmosphere of academic ostracism.... Because visual education as such has seldom been allowed to crystallize in any but vocational form, its value to the liberal arts commitment has never been fully approximated. In recent times some institutions have made tentative efforts to find a place for it in their program of liberal studies." However, "The general opinion among scholars in the academic areas is that such courses are worthless to all but students specializing in art.[18]

Communications educators have bought the tradition. Journalism and mass communications schools have fought their way into academic respectability over the last 50 years, trying, without total success, to escape the label "vocational." Hands-on work is permissible if it involves "literary" efforts such as writing, or managerial responsibilities such as editing or directing. "Art," however, is still suspect.

Administrators are expected to protect the status quo. At universities where there is a strong program in art and design, communications school administrators may fail to see the relevance of developing courses that specifically address approaches to visuals for the mass media. If their programs do have a

visual component, they may find it awkward to deal with because it does not fit comfortably into one of the conventional media categories. Furthermore, administrators may avoid developing a visual unit on the excuse, justified or not, that it will be too expensive to equip. If the equipment budget includes computer labs, they may fail to build layout and typesetting into their plans for writing and editing.

Faculty members, too, may provide surprisingly little support for visual literacy if they subscribe to the narrow view that visual communication is little more than "playing with pictures"; window-dressing for the "real" verbal message. In their own teaching, they may overlook the necessity of presenting information in ways that are visually interesting for TV-suckled students -- or they may simply not know how. It also may not occur to them to consider visuals as factors in their research on media effects. In other words, communications faculties may be visually illiterate.

As computers are added to communications facilities, however, visual literacy on the part of faculty becomes even more important. In the premiere issue of a magazine called Academic Computing, Graves says:

> Today's color graphic display ... is a new medium for most of us. Under software control, it is more visual and interactive and thus potentially more visceral than the printed page. In designing and participating in the implementation of instructional software, we are forced to rethink how we know what we know in order to take advantage of the visual and dynamic intelligent display that is the medium through which others will interact with our accumulated perspective on the subject.[19]

Students present another challenge. Communications instructors are in the precarious position of trying to inform young people, at the speed of sound, about an industry that is changing at the speed of light. They cannot make assumptions about today's students, who may have been raised on television but who are not necessarily knowledgeable about what makes any medium effective. The visual capacities these students possessed as children may have been trained out of them through neglect. Their verbal skills also may be weak, rendering them less than capable of articulating critical assessments, or of creating inte-

grated visual/verbal messages. Their creative abilities may be stunted by a surfeit of vivid media entertainment. Many approach their first visual communication course with preconceived notions about its relevance, and surprising diffidence about their creative abilities.

Fortunately, visual communication is fun. The pleasure of teaching it is opening these students up; encouraging them to explore, discover, and create. Also to the advantage of the instructor is the appropriateness of teaching with the entertaining use of visuals. In fact, visual presentation contributes to more than visual literacy: it contributes to students' ability to observe and learn. In a recent article related to reading, Considine says:

> There is a substantial body of evidence to suggest that learning can be improved if teachers incorporate visualization into classroom strategies .... In this world of instant replays, freeze frames, and congressional investigations of rock videos, there is a growing need for students to be trained to understand the visual culture in which they live. While the quality of TV programming is often lamented, critical production will only come about as a result of critical consumption. Shallow processing of television and other media is not the result of any attribute of the media [themselves], but is derived from the expectations viewers have of it.[20]

Obviously the media are depending ever more heavily on visuals. Almost as obvious is the need to make students more visually aware. What is less obvious, perhaps, is the need to raise the visual awareness of administrators and faculty, to overcome what Dondis calls the "false dichotomy" between fine and applied aspects of visual communication. Without some consciousness-raising, there is no sense in hoping to set a visual literacy standard. Similarly, without a clear understanding of the skills involved, there is no hope for teaching visual literacy with any kind of standardized approach.

OBJECTIVES FOR TEACHING

Visual literacy has been said to require competencies analogous to those required for verbal literacy. In Fransecky's words, the visually literate person:

> ... can "read" visual language with skill. He can "write," that is, compose visual statements with skill, perhaps with eloquence. He can translate from the visual language to the verbal and vice versa. He has a basic understanding of the grammar of visual language and some realization that it parallels verbal language. He is familiar with and somewhat skilled in the use of the tools of visual communication. And, finally, of course, he is developing a critical sensibility toward visual communication.[21]

With this statement, Fransecky touches on five of the six teaching objectives offered earlier in this paper. But he does not address how visual literacy can be taught in a way that meets the practical needs of communications education. One need is for students to develop a sense of professional responsibility about the effects of their messages on audiences. The six skills-oriented objectives state that the visually literate communicator should be able to:

1. READ and interpret visible actions, objects, and symbols appropriate to communications media; understand visual grammar and syntax.

Reading connotes understanding; interpreting connotes the ability to articulate that understanding. If one understands the visible aspects of the medium, by rights one should also be able to "read" the visual aspects of the human environment, from body language to architecture. The student should be made aware that graphic design is very much a part of the three-dimensional world, in its content, its spatial meanings, and the lives of its consumers.

Understanding visual grammar and syntax suggests a linguistic approach to visual literacy. As Dondis explains it:

> To be considered verbally literate, one must learn the basic components of written language: the letters, words, spelling, grammar, syntax.... Visual literacy must operate somewhat within the same boundaries.... Its purposes are the same as those that motivated the development of written language: to construct a basic system for learning, recognizing, making, and understanding visual messages that are negotiable by all people....[22]

At its most basic level, the visual components are dot, line, shape, direction, tone, color, texture, scale or proportion, dimension, and motion. This is the abstract understructure, the pure visual message. In addition, Dondis describes visual information in two more levels: representational visual material we recognize in the environment and can replicate on film, etc.; and visual input in the form of myriad symbol systems from pictures to alphabets. All of these are manipulated according to a syntax of principles or techniques derived from Gestalt theory. The most dynamic of the visual techniques is contrast, with exists in a polar relationship with its opposite technique, harmony.[23]

These components and techniques are presented throughout the literature of graphics, design, and fine arts; instructors need only choose their favorite authors. In communications education, the visual/verbal analogy is a natural approach for teaching verbally oriented students, especially with regard to integrating their skills.

2. EVALUATE and appreciate visual communication from knowledgeable critical perspectives.

Develop a critical sensibility toward visual communication; learn to evaluate, analyze, appreciate, and enjoy it. Curtiss states that the visually literate student should "understand the subject matter and meaning within the context of the culture that produced the visual work"; and should be able to "evaluate the disciplinary and esthetic merits of the work."[24]

The student can be encouraged to assess visual communication from at least three perspectives: the purely visual and esthetic view of the creator; the emotional and subjective view of the audience; and the practical view of the professional communicator. These approaches, derived from fine art, are described by Feldman as formalism, expressivism, and instrumentalism.[25]

The FORMALIST critic assesses the relationships among visual elements independent of labels, associations, or other conventional meanings. A work is

judged on how its form -- its underlying organization, its craftsmanship -- is responsible for its perception of meaning or esthetic quality. Certainly mass media messages are purposeful creations, designed after the maxim "form follows function." But there is no argument against using a Mondrian grid in a layout, or placing a logo on a photograph that is pretty enough to hang on the wall. Highly functional Bauhaus design, beautiful in its simplicity, is exhibited in fine arts museums. Advertising is collected and appreciated for its esthetic, cultural and historical value. Type, color, illustrations, and space, taken in the abstract, express power and esthetic value in any medium.

EXPRESSIVISM is the "opposite" of formalism in that it looks at the ability of art to communicate ideas and feelings intensely and vividly. It looks at the originality, relevance and cognitive validity of the expression -- at the "truth" expressed by the artist. The mass media are full of visual "truths": the faces of children, the horror of wars, the action of sports. Color and realism attract attention and enhance credibility. Juxtaposed images can clarify -- or distort -- relationships.

The INSTRUMENTALIST critic views art as a tool for advancing some moral, religious, political or psychological purpose. Mass media messages are often intended to fulfill these or simply reportorial or persuasive purposes. They not only mirror culture and values, but they also create a consciousness of culture. This is exactly what fine art has done through the centuries. In the sense that the religious art of the Middle Ages was created in part to communicate to the illiterate, it <u>was</u> mass communications, with its own kind of persuasive power. Students should learn to look for the larger psychological and sociological meanings as part of developing their sensitivity to their responsibilities as communicators.

3. WRITE or create visual messages appropriate to communications media; understand the creative process.

It is natural to refer to the creation of visual images as "writing" because the processes are remarkably similar. As has been mentioned, a verbal and visual dichotomy is used to describe the fundamental nature of cognition. Paivio says, "One important hypothesis ... is that images are particularly effective in promoting rapid associations while verbal processes give them direction."[26] Edwards provides a list of what she calls right-mode and left-mode characteristics: right-mode processing is nonverbal, concrete, spatial, intuitive, and holistic; while left-mode processing is verbal, symbolic, digital, logical, and linear.[27] De Bono positions the process of lateral thinking, which he says is closely related to insight, creativity and humor, opposite the process of vertical or analytical thinking.[28]

All of these authors emphasize that while they are describing two distinct cognitive processes, the processes are both necessary and complementary. In terms of teaching, as in the examples of the benefits of visual presentation in the classroom, it seems evident that exercising the neglected visual side of cognition can only help the student's ability to reason and think in general. What many educators may not realize, however, is the contribution that visual literacy also makes to the teaching of <u>writing</u>. Curtiss notes:

> One phenomenon observed in my [visual literacy] classes was a dramatic improvement in writing skills by some students.... I can conjecture two interrelated explanations. First, as students become more visually aware, their descriptive writing skills improve.... Second, some students may have a natural predilection for visual learning that previously had been neglected and/or discouraged. In a course of study where visual thinking is validated, where students are encouraged to perceive and create interrelated and interlocking whole images and structures, they may better grasp the idea of unlocking other structures such as language.[29]

In discussing the use of computers, Graves remarks that writing instructors "have found color and motion effective in teaching students how to decompose and construct words according to their prefixes, suffixes, and roots."[30] In fact, visual exercises are often used to teach verbal skills. For instance, a textbook

for advertising copy writers, The Creative Connection[31], suggests a visual approach to conceptualization called "vizthink." Brain-storming between copy writer and art director is the accepted technique for creating advertising. In newspaper journalism, the recent infatuation with information graphics as a means of communicating factual material has spawned a number of articles and books. Perhaps most significantly, some industry employers now are telling communications schools that they are hiring not just graduates who can write, but well-rounded individuals who can visualize.

The dualistic approach to cognition is often used in works on creativity. Behrens says that creativity is modifying things, inventing things, juxtaposing things to produce new meanings: "Inventive modification, laced with logical thinking, is the most effective means by which we can design ...."[32]

The student -- or the professional -- who wants to create effective visual messages needs to understand both the meaning and the process of creativity. Regardless of the tangible result, the process is the same. In the classic little book, A Technique for Producing Ideas, Young describes five creative steps: gathering raw materials, looking for relationships, letting the problem incubate, getting or settling on the final idea, and executing the message.[33] This is a standard approach to problem-solving. If creativity is a such clearly definable process, it would seem that, despite what some educators think, it can be learned.

4. INTEGRATE VISUAL AND VERBAL CONTENT at every stage from evaluation through execution of the message.

Another common approach to creativity is holistic. As Dondis puts it:

> The visual mode is a whole body of data that can be used, like language, for composing and understanding messages at many levels of utility from the purely functional to the lofty precincts of artistic expression. It is a body of data composed of constituent parts, a group of units determined by other units, whose significance as a whole is a function of the significance of the parts.... Inevitably, the final concern of visual literacy is the whole form, the cumulative effect of the combination of

selected elements, the manipulation of the basic units through techniques and their formal compositional relationship to intended meaning.[34]

In a similar vein, Curtiss states that:

> ... visual literacy [is] an integral part of our activity in the world, [one that] addresses the cognitive and organizational processes -- visual thinking, comprehension, problem-solving, and creativity -- that facilitate visual communication for both creator and receiver.... It entails the ability to ... grasp intuitively the Gestalt, the interactive and synergistic quality of the work.[35]

Gestalt theory is, of course, a holistic view. The idea that all meaningful wholes are composed of parts suggests a verbal analogy for visual design. Where in verbal communication, characters are combined to form words, sentences, and finally articles or stories; in visual communication, points and lines are combined to form figures, layouts, and finally designs or visual stories. This analogy is limited, but it can help the verbally oriented communications student, who may be reluctant to express ideas visually, to realize that:

- Verbal and visual messages share parallel structures. Visuals are no more difficult to understand than writing. Language is visual at any and every stage. A period is a point. A paragraph is a visual unit. A period or a story can be a layout element.
- Creating a message is a single, inseparable, simultaneous visual and verbal process. Creativity exists at the higher (whole) end with the idea; mechanical skills at the lower (part) end with the thumbnail sketch. The idea precedes the skilled execution.
- Gestalt exists at every level. Wholes at every level consist of parts and contain meaning. Even a point contains the meaning of its location, of the decision that placed it where it is. The ultimate goal of communication and the ultimate Gestalt are the same: conveying meaning.

5. RECOGNIZE legal, ethical, and moral RESPONSIBILITIES inherent in presenting visuals in a mass communications context.

Understanding the responsibilities of visual communications assumes an impressionable, often susceptible, sometimes illiterate audience. Students should be made aware of the roles and power of visual communication; of social and psychological issues such as minority stereotyping and the portrayal of sex and violence; of ethical issues such as misleadingly manipulated images and

violation of copyright. It is suggested that the visual aspects of these issues be emphasized in instructional modules for use in courses such as writing and law, where they may be overlooked.

6. UNDERSTAND THE MECHANICAL PROCESSES of communications media as they affect the visual message.

While this paper has suggested that a course in visual literacy not be medium-specific, students should nevertheless be made aware of ways in which certain media affect their creative approaches to, and the final results of, their work. They need to develop a rudimentary understanding of mechanical production processes as they affect the visual quality of the message. They should realize that original creative work is never distributed in its original form: photos become halftones, colors separated, elements digitized for printing and television. They will have to make choices of typefaces, colors, and illustrations based in part on reproducibility, and become familiar with tools required for editing and layout.

COURSE CONTENT: Overall, it is suggested that the visual literacy course, at least on an introductory level, minimally cover these topics: theories of visual perception; visual grammar and syntax; analysis and criticism; the creative process; visualization and layout; visual/verbal integration; the power of visuals; legal, ethical, and moral responsibilities; overview of production processes; and implications of new technologies.

This writer has found no one comprehensive textbook for a course like this, especially one that covers both print and television, or addresses issues and implications of new technologies. The person who designs and teaches a visual literacy course needs to have a broad, open attitude to communications, and to be willing to explore literature in a number of academic disciplines, plus the most current industry periodicals.

MEASURING VISUAL LITERACY

The question of how to measure students' visual literacy skills is no more difficult to answer than is the question of how to measure verbal literacy, given clear objectives, topics and criteria. This is not to say that measuring either kind of literacy -- or in fact any creative or analytical work -- is easy. Suggestions for evaluation in a visual literacy course include informal and formal methods:

INFORMAL EVALUATION: The instructor can encourage discussion as a means to informally evaluating students' critical abilities through regular lectures and visiting speakers, display of examples, brain-storming sessions, and in-class critiques. Presenting examples of work of varying quality, encouraging discussion of all possible reactions to a message, emphasizing that there are no "right" answers, just better and worse solutions -- all help support the objectives of the course. Brain-storming helps students push beyond trite solutions, as do personal conferences at the rough sketch stage of major assignments.

The goal of critique sessions is not to grade students' work, but to help them learn to make their own judgments. Sessions should be approached as non-threatening, constructive, and professionally realistic. Student work can be displayed anonymously for comments by the instructor, classmates, or visiting professionals. It helps to set aside certain days for critiques, and establish a format of esthetic, emotional and practical criteria.

FORMAL EVALUATION: An excellent tool is the itemized grading form. This form lists grading criteria, which can include aspects of content, style (rules, guidelines), and execution, with room for instructor's comments. It can be attached to a detailed written assignment handout for the student to read, then hand back in with the project. The form both clarifies grading criteria for the student and helps the instructor grade consistently.

Tests are the obvious formal evaluation tool. Questions should measure students' abilities to assess the effectiveness of visuals on a number of

levels; use basic terminology; understand different visual approaches; and discuss implications, issues, and responsibilities. While open-ended questions are ideal, multiple-choice questions can be surprisingly effective in measuring "subjective" skills. For instance, students can be asked to study a number of examples, such as ads, and asked to identify approaches and make comparisons.

Measurement is one of the finer points of teaching. The ability to evaluate the results of a teaching effort should be at least some evidence that teaching objectives can be or have been met. But what of the larger picture? In view of the general lack of awareness of a need for teaching visual literacy mentioned earlier, will there be a place in the curriculum for teaching it at all?

CURRICULUM FOR VISUAL LITERACY

It would be difficult to find a journalism or mass communications program without at least one course, or part of a course, devoted to visuals. The visual unit, however, may take a medium-specific approach, such as photography or newspaper layout, instead of the broader, more conceptual approach to visual literacy recommended here. Furthermore, there may be resistance, for whatever reason, to changing or expanding the curriculum to include visual literacy. Yet many solutions, requiring varying degrees of investment in faculty time and material resources, are possible. For example:

- Require that students, as part of their liberal arts curriculum, take one or more courses in a visual arts or design department;
- Develop a special course in cooperation with a department of art or design, to be required for communications students to take as part of their liberal arts curriculum.
- Develop visual teaching modules to be incorporated in existing communications courses such as introduction to communications, writing, editing, theory, law, and introductory courses to various fields such as newspaper and advertising.
- Require that students take at least one visual course, such as graphics, layout, photography, or television in their communications program.

- Require students to take an introductory visual literacy course as part of their communications program. This can be a new course or a revision of an existing course. It should not be medium-specific, but a full-fledged content and skills course adapted to the overall goals and makeup of the existing curriculum.

- Follow up a required introductory course in visual literacy with an elective of at least one existing course in some visual area such as photography.

- Offer as electives special readings seminars and research courses on topics such as visual perception and effects of visuals in media.

The last suggestions -- a general introductory course followed by electives -- are, of course, preferable. It cannot be assumed that students majoring in visual areas such as photography and television will become visually literate in the ways described in this paper. It would be better for them to be exposed, like all students, to a general introductory course before embarking on their specialized sequences, just as all students take an introductory writing course.

At the introductory level, the question of whether the approach to visuals should be from graphics, photography, or some other area, or whether some "hybrid" course should be devised, is not moot. The emphasis is on an integrated, overall approach to the function of visuals in communications. On the other hand, the direction the student takes after this introductory course depends on the goals and structure of the individual program.

Curtiss remarks that "the essential concepts and processes of visual literacy could be achieved in a full-year course of three credits per semester. Ideally there would be a balance of verbal learning with lectures, discussions, and writings; passive visual learning with primary examples, slides, and films; and active learning with hands-on visual problem-solving ... experiences...."[36] A course such as this may be impractical for most instructors, but they should have little difficulty incorporating at least some of the teaching objectives mentioned into the existing program.

At a more advanced level, faculty members can develop special skills courses with problems that call for solutions from several media areas or new areas, such as video, film, computer graphics, electronic and desktop publishing, interactive media, and multimedia presentations. For instance, a course could be directed toward certain kinds of consumers, as are some writing courses, or toward information graphics as a distinct way of presenting information. Seniors or graduate students can be assigned term projects in which they research theoretical, ethical, legal or technical issues related to visuals. In addition to written reports, they might produce audiovisual presentations -- slides or videotapes -- that later would be available as teaching resources. Faculty members can also lead seminars on theoretical and empirical topics related to visual communication.

Visual communications modules, including lecture notes and visual supporting materials, can be developed and made available for courses such as mass media and society, law and ethics, and research. A speakers series would inform students and faculty about developments in the field and introduce them to professionals. Sponsors might be student groups and/or industry leaders.

Each school sets its own agenda for curriculum development. One point of resistance to change might be the "75-25 rule"; the ACEJMC accreditation requirement that students take no more than 25 percent of their courses in communications and the rest in liberal arts. Yet none of the suggestions above violates this rule.

SETTING A VISUAL LITERACY STANDARD

The Visual Communications (VisCom) Division of the AEJMC has offered a substantial and clearly written Sample Visual Literacy Standard (see Appendix) to be added to the existing 12 standards of the Accrediting Council on Education in Journalism and Mass Communications (ACEJMC).[37] But does visual literacy warrant setting a distinct and separate standard? This writer thinks not, on the

basis that the structure of the existing standards makes it inappropriate, and that an accreditation standard alone is insufficient. First, the wording of the CURRICULUM standard (underlining added):

> Courses should be offered in order to ensure that students learn to gather, analyze, organize, synthesize, and communicate information in a format appropriate to their areas of specialization. Competence in English should be stressed everywhere, and demonstration of such competence should be a requirement for graduation. Theoretical instruction and practical laboratory experience should be provided in the basic skills of writing, reporting, editing, visual communication, layout and design, and other fundamental techniques appropriate for such specialties as advertising, public relations, and broadcasting. Whatever the specialization, the skills work should be offered in a context of philosophical instruction in such areas as history, law, ethics, and mass communications theory.

No kind of literacy is mentioned in this standard, but visual topics are specifically named. If "competence in "English" can be construed as "verbal literacy," the suggestion is only that the wording be changed to read, "competence in verbal literacy (English) and visual literacy."

Two other standards may be relevant: Under EQUIPMENT/FACILITIES: "The library should have at least the standard books and current periodicals in the field. ...Laboratories should have ample space and equipment for efficient instruction." BUDGET: "The budget for the unit should reflect balance among the programs in faculty salaries, office and instructional space, availability of needed equipment, student financial assistance, faculty research and travel, library resources and other support services."

These standards are not specific enough to warrant editing, or at least editing for the cause of visual literacy. In fact, the wording of all standards is deliberately vague so that the criteria can be applied to programs with different goals. The assumption is that the purpose of the accrediting process is not to specify courses or any other criteria in detail, but to evaluate the academic unit on the basis of whether its performance is consistent with its own self-stated goals.

It is here suggested that the VisCom Division seek only to reword the curriculum standard to include visual literacy with verbal literacy. The Sample Visual Literacy Standard, then, can be used as a starting point in developing a broad-based program that would actually establish visual literacy as a working curriculum standard.

ROLE OF THE VISUAL COMMUNICATIONS DIVISION

The VisCom Division needs to do more than write a visual literacy standard. It needs to promote the teaching of visual literacy through a comprehensive program that includes plans for consciousness-raising, teaching, curriculum, research, and facilities and resource development.

CONSCIOUSNESS-RAISING: An aggressive campaign will be necessary in order to educate the educators; to raise administrator and faculty awareness about the need for teaching visual literacy. Each school should have at least one faculty member who is qualified and willing to oversee the visual literacy effort. Presentations, literature, personal campaigns, demonstrations and an information bank would all help. Educators should be encouraged and rewarded for joining the effort. Their jobs should be made easier and their status improved, whether through publication, sharing of ideas, or access to resources.

TEACHING: "Visual literacy" is still just a catchword. The definitions are pretty, but broad and vague. The VisCom Division should narrow and refine a set of skills-oriented objectives, as suggested in this paper, for teaching in mass communications. It should collect suggestions and examples for course development and research. Experts in other fields, such as members of the International Visual Literacy Association[38], should be consulted.

CURRICULUM: Several approaches to curriculum development have been suggested. VisCom should promote the inclusion of a required introductory visual literacy course in every curriculum. This course should be oriented to a general understanding of how visuals work in <u>all</u> media. In addition, instructors should be encouraged to share outlines for special courses and teaching modules.

RESEARCH: The VisCom Division should call for top-quality research on visual communication. It should consider accepting more interdisciplinary efforts, and bring in panel experts from other fields. In addition to empirical work, research aimed at teaching, such as software development, should be encouraged and legitimized.

FACILITIES DEVELOPMENT: The VisCom Division should help define for schools and accrediting teams what are the "standard books and current periodicals" on visuals for communications libraries. They can provide lists of resources including books, periodicals, graphic style manuals, directories, and annual collections of the best visual work in advertising, newspapers, and other fields. Members should review new publications and recommend them for resource lists.

Similarly, VisCom should define what are "ample space and equipment" and "basic equipment" for teaching visual courses. Laboratories should be limited, for instance, to no more than 20 students. Students should have access to basic tools and equipment such as T-squares, light tables, or photo enlargers. If the school has insufficient room for labs, other areas on campus should be explored, and handouts compiled of local vendors for services such as copying, typesetting, and photo developing. Outside resources such as computer demos and guest speakers can be exploited.

The many schools that are considering or have installed computer labs for writing and editing should be encouraged to include graphics capabilities. VisCom should develop a network of instructors who are using their labs for graphics. These people can advise others on hardware and software decisions.

Faculty members should be encouraged to try innovative computer teaching methods; to avoid the complaint lodged against some writing labs that computers are being used as "no more than glorified typewriters." Computer labs should allow students to integrate text and graphics, to engage in simulations of newsroom procedure, to practice with tutorials, to take tests onscreen, to edit and lay out actual wire copy. Wiley reports that broadcast newswriting instruc-

tors at the University of Texas at Austin have found that with their networked computer system, they can work in their offices and still respond to student problems in real time; student and instructor can work together on a piece of text simultaneously from different computers; and reference material can be stored in a file server for anyone's use.[39] Faculty members should explore advances such as on-line wire news and reference services that include graphics; large projection screens for computers; digital and laser disk technologies.

The greatest obstacle to developing facilities is, of course, budget. However, the argument of administrators that visual programs are too "equipment intensive" is weakening. "Although teachers and administrators may fear that visual literacy is merely another demand upon their limited time, staff, and budgets, visual literacy training, when treated as a competency to be integrated into the curriculum, can actually be achieved within existing schedules and despite limited materials and staff," says Considine.[40]

For instance, a study of library use may show that some publications are never used: budgets can be revised for purchase of more relevant materials. A little probing may turn up opportunities for grants or educational discounts from equipment vendors. Microcomputers and peripherals are becoming less expensive, and compatibility among different brands less of an obstacle. Computer writing labs can be adapted to graphics at relatively little cost: the addition of expanded memory, some software, and a laser printer are all it takes to do electronic layout and approximate typesetting. Some excellent software is free, and a modem can gain access to any number of electronic bulletin boards that offer software for downloading. The not-for-profit Oates Clearinghouse not only offers low-cost mass-comm teaching software, but also solicits and reviews software written by educators, and is expanding its network of educators who will share their experiences with computer instruction.[41]

RESOURCE DEVELOPMENT: Instructors should be encouraged to share ideas and resource materials for classrooms, laboratories, and libraries. VisCom should add substance to its recommendations with an expansion of its syllabus bank to include lectures, teaching modules, exercises and project assignments, tests, and lists of audiovisual materials.

These are the suggestions. The obvious question is, who will do the work? This program would seem to call for a paid coordinator, at least. One suggestion is to start by working through the division newsletter. Resourceful, creative visual communications educators who care about the topic of visual literacy should be able to sacrifice some time to find help. The reward, after all, is a position with more status in an area that has long lacked validation.

CONCLUSION

The struggle to establish visual literacy not only as a viable concept but also as a standard of education in schools of journalism and mass communications has been, and will be, long and hard. A separate accreditation standard could not do the job alone: much of the work suggested in this paper would still be necessary. It is up to members of the Visual Communications Division of the AEJMC to make the necessary commitment of time and energy to heightening awareness of visual literacy and supporting its inclusion in the curriculum. Perhaps more importantly, it can always be hoped that the common goal of establishing visual literacy will lead to more interdisciplinary cooperation throughout journalism and mass communications education.

APPENDIX:

SAMPLE VISUAL LITERACY STANDARD

The unit should take affirmative action to ensure that students are visually literate upon graduation. Explanation:

The time has passed when visuals were used simply to attract readers to the word. Journalism and mass communication instruction must take into account the growth in visual creation and consumption in society. Students should understand how the most effective communication can be a wedding of visual and verbal in a mutually reinforcing partnership. Evidence:

a. Indication in self-study report that unit is affirmatively pursuing a visual literacy objective and that it has an agreed-upon plan to implement visual literacy.

b. Examination of catalog statements and unit requirements to see that visual literacy is expected of graduates.

c. Inclusion of courses in the unit curriculum in still photography, graphic design, film and/or video production or research in visual communication and perception.

d. Evidence that visual communication problems are discussed in such classes as law, ethics, mass media and society and media effects.

e. Faculty vitae showing professional and scholastic backgrounds in faculty charged with visual literacy instruction.

f. Interviews with students indicating they have up-to-date knowledge in visual communication and that they are aware of the interrelationships between visual and verbal communication.

g. Facilities and equipment necessary to provide the level of instructional support in the visual medium or media that the unit has chosen to pursue. On-site inspection of those facilities and equipment.

 VisCom newsletter (Fall 1985) p. 3.

NOTES

1. Deborah Curtiss, Introduction to Visual Literacy: A Guide to the Visual Arts and Communication (Englewood Cliffs, NJ: Prentice-Hall, 1987), p. 1.
2. Roger B. Fransecky and John L. Debes, Visual Literacy: A Way to Learn -- A Way to Teach (Washington, D.C,: Association for Educational Communications and Technology, 1972), p. 7. See also: International Visual Literacy Association, "Visual Literacy: Toward a Definition," Visual Literacy Newsletter, 5(9), 1976.
3. Donis A. Dondis, A Primer of Visual Literacy (Cambridge, MA: The MIT Press, 1973), pp. 183, 185.
4. Eastman Kodak Company, "The Elephants of Visual Literacy." Supplement to periodical Visuals Are a Language (Rochester, NY: Eastman Kodak Co., 1971), pp. 2-3.
5. Steven Schwartz, Measuring Reading Competence: A Theoretical-Prescriptive Approach (New York: Plenum Press, 1984), pp. 11-39.
6. Dondis, p. 39.
7. Ibid., p. 106.
8. Rudolf Arnheim, Visual Thinking (London: Faber and Faber Limited, 1969), p. 315.
9. Ibid., p. 115.
10. Ibid., p. 229.
11. Ibid., p. 232.
12. Allan Paivio, Imagery and Verbal Processes (Hillsdale, NJ: Lawrence Erlbaum Associates, 1979), p. 38.
13. Other relevant disciplines include: applied psychology; audiovisual communications; audiovisual education; clinical psychology; developmental psychology; ergonomics; human factors; information science; linguistics; neuroanatomy; neurophysiology; optometry; psychology of learning and communication disorders/mental retardation; psychology of learning, memory, and cognition; psychology of reading; psychometrics; semiotics; and synergistics. Related topic areas include: cerebral lateralization; creativity; information processing; intelligence; learning theory; neurolinguistic programming; nonverbal communication; pattern recognition; reading disabilities; reading readiness; testing reading; and visual perception. This is, of course, only a partial list.
14. Curtiss, p. vii.
15. Dondis, p. 18.
16. Literacy Volunteers of America, Inc., "Facts on Illiteracy in America" (Syracuse, NY, no date; 1980 census figures).
17. Fransecky, p. 9.
18. Robert J. Wolff, "Visual Intelligence in General Education," in Gyorgy Kepes (Ed.), Education of Vision (New York: George Braziller, 1965) pp. 223-224.
19. William H. Graves, "CAI: Computer-Assisted Involvement," Academic Computing, Spring 1987, pp. 57, 58.
20. David M. Considine, "Visual Literacy & Children's Books: An Integrated Approach," School Library Journal, September 1986, pp. 38, 42.
21. Fransecky, p. 7.
22. Dondis, pp. x.
23. Ibid., pp. 13-16.
24. Curtiss, p. 3.

25. Edmund Burke Feldman, Varieties of Visual Experience (New York: Harry N. Abrams, 1973), pp. 454-462.
26. Paivio, p. 38.
27. Betty Edwards, Drawing on the Right Side of the Brain (Los Angeles: J.P. Tarcher, 1979), p. 40.
28. Edward de Bono, Lateral Thinking: A Textbook on Creativity (London: Ward Lock Educational, 1970), pp. 39-55.
29. Curtiss, p. vii.
30. Graves, p. 58.
31. Arthur A. Winters and Shirley F. Milton, The Creative Connection (New York: Fairchild Publications, 1982).
32. Roy R. Behrens, Design in the Visual Arts (Englewood Cliffs, NJ: Prentice-Hall, 1984), p. 106.
33. James Webb Young, A Technique for Producing Ideas (Chicago: Crain Communications, 1975), pp. 53-54.
34. Dondis, pp. xi.
35. Curtiss, pp. 1, 3.
36. Curtiss, p. viii.
37. The accreditation standards, as described in the reporting form used by ACEJMC accrediting teams, include: (1) governance/administration, (2) budget, (3) curriculum, (4) student records/advising, (5) instruction/evaluation, (6) faculty: regular/part-time, (7) internships and work experience, (8) equipment/facilities, (9) faculty scholarship/research/professional activities, (10) public service, (11) graduates/alumni, and (12) minority and female representation.
38. International Visual Literacy Association, 2970 NW Hayes St., Corvallis, OR 97330. This 15-year-old highly interdisciplinary organization began as part of, and still has ties with, the Association for Educational Communications and Technology based in Washington, D.C. IVLA publishes its annual conference proceedings and offers bibliographies of resources for teaching and research at all educational levels.
39. Gale Wiley, ""The Professor Is In," Academic Computing, Spring 1987, pp. 35, 71.
40. Considine, p. 38.
41. The Oates Clearinghouse for Computer-based Education in Journalism and Mass Communication, School of Communication, University of Miami, P.O. Box 248127, Coral Gables, FL 33124.